

WHAT IS CLAIMED IS:

1. A packet communication terminal for packet communication comprising:

5 network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the packet communication terminal can be connected;

10 network address storing means for storing the network address acquired by the network address acquiring means;

network address notifying means for notifying a correspondent packet communication terminal of the network address stored in the network address storing means; and

15 first packet receiving means for receiving a packet sent from the correspondent packet communication terminal to the network address;

20 wherein when there exist a plurality of networks to which the packet communication terminal can be connected, the network address acquiring means acquires a plurality of said network addresses from the respective networks;

wherein the network address storing means stores the plurality of network addresses;

25 wherein the network address notifying means notifies the correspondent packet communication

terminal of the plurality of network addresses; and

wherein the first packet receiving means receives packets generated from identical data and sent from the correspondent packet communication terminal to the respective network addresses.

2. The packet communication terminal according to Claim 1, further comprising ineffective network address notifying means for notifying the correspondent packet communication terminal of the network address acquired by the network address acquiring means from the network to which the packet communication terminal is no longer able to stay connected, and information that said network address is made ineffective.

3. The packet communication terminal according to Claim 1, further comprising:

radio wave intensity measuring means for, when a plurality of said network addresses are stored in the network address storing means, measuring intensities of radio waves from the respective networks from which the respective network addresses were acquired; and

effective network address notifying means for, when a maximum intensity out of the intensities measured by the radio wave intensity measuring means is not less than a first predetermined threshold, notifying the correspondent packet communication terminal of the network address acquired by the network

address acquiring means from the network having transmitted the radio wave of the maximum intensity, and information that a communication state with said network is good.

5 4. The packet communication terminal according to Claim 3, further comprising communication state notifying means for, when all the intensities of the radio waves from the plurality of networks measured by the radio wave intensity measuring means are smaller
10 than a second predetermined threshold, notifying the correspondent packet communication terminal of information that there is no network from that the packet communication terminal can receive a radio wave of not less than the second predetermined threshold.

15 5. A packet communication terminal for packet communication comprising:

 network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the packet communication
20 terminal can be connected;

 network address storing means for storing the network address acquired by the network address acquiring means;

25 network address notifying means for notifying a correspondent packet communication terminal of the network address stored in the network address storing

means;

first packet generating means for generating a packet from data to be transmitted to the correspondent packet communication terminal; and

5 first packet transmitting means for providing the packet with the network address stored in the network address storing means and for transmitting the packet to the correspondent packet communication terminal;

10 wherein when there exist a plurality of networks to which the packet communication terminal can be connected, the network address acquiring means acquires a plurality of said network addresses from the respective networks;

15 wherein the network address storing means stores the plurality of network addresses;

wherein the network address notifying means notifies the correspondent packet communication terminal of the plurality of network addresses; and

20 wherein when a plurality of said network addresses are stored in the network address storing means, the first packet transmitting means provides said packets generated from identical data by the first packet generating means, with the network addresses acquired from the respective networks and transmits the packets to the respective networks.

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6. The packet communication terminal according

to Claim 5, wherein when a plurality of said network addresses are stored in the network address storing means, said packets transmitted to the respective networks by the first packet transmitting means are
5 packets identical to each other.

7. The packet communication terminal according to Claim 5, further comprising first redundant packet generating means for generating redundant packets by forward error correction codes from data part of said
10 packets generated by the first packet generating means,

wherein the first packet transmitting means distributes and transmits the packets generated by the first packet generating means and the redundant packets generated by the first redundant packet generating
15 means, to the networks in such a manner that even in a case where the packet communication terminal is no longer able to stay connected to any one of the plurality of networks, the correspondent packet communication terminal can receive different packets in
20 the number equal to or greater than the number of packets generated by the first packet generating means.

8. A packet communication terminal for packet communication comprising:

destination network address storing means for
25 storing a network address notified of by a correspondent packet communication terminal, as a

destination network address;

second packet generating means for generating a packet from data to be transmitted to the correspondent packet communication terminal; and

5 second packet transmitting means for transmitting the packet to the correspondent packet communication terminal;

10 wherein when a plurality of said network addresses are notified of by the correspondent packet communication terminal, the destination network address storing means stores a plurality of said destination network addresses corresponding to the plurality of network addresses; and

15 wherein when a plurality of said destination network addresses are stored in the destination network address storing means, the second packet transmitting means transmits said packets generated from identical data, to the respective destination network addresses.

20 9. The packet communication terminal according to Claim 8, wherein when a plurality of said destination network addresses are stored in the destination network address storing means, said packets transmitted to the plurality of network addresses by the second packet transmitting means are packets
25 identical to each other.

10. The packet communication terminal according

to Claim 9, further comprising second redundant packet generating means for generating redundant packets by forward error correction codes from data part of the packets generated by the second packet generating means,

wherein when a plurality of said destination network addresses are stored in the destination network address storing means, the second packet transmitting means distributes and transmits the packets generated by the second packet generating means and the redundant packets generated by the second redundant packet generating means, to the plurality of destination network addresses in such a manner that even in a case where any one of the destination network addresses becomes ineffective, the correspondent packet communication terminal can receive different packets in the number equal to or greater than the number of packets generated by the second packet generating means.

11. The packet communication terminal according to Claim 8, wherein, based on the network address notified of by the correspondent packet communication terminal, and information that said network address is made ineffective, the destination network address storing means makes ineffective the destination network address corresponding to said network address.

12. The packet communication terminal according to Claim 8, wherein when a plurality of said destination addresses are stored in the destination address storing means, based on the network address notified of by the correspondent packet communication terminal, and information that a communication state with the network from which said network address was acquired is good, the second packet transmitting means transmits said packets to the destination network address stored corresponding to the network address in the destination network address storing means.

13. The packet communication terminal according to Claim 12, wherein, based on information that there is no network from that the correspondent packet communication terminal can receive a radio wave of not less than a second predetermined threshold, notified of by the correspondent packet communication terminal, the second packet transmitting means transmits said packets to the respective destination network addresses stored in the destination network address storing means.

14. A packet communication terminal for packet communication comprising:

destination network address storing means for storing a network address notified of by a correspondent packet communication terminal, as a destination network address; and

second packet receiving means for receiving a packet transmitted from the correspondent packet communication terminal;

wherein when a plurality of said network addresses are notified of by the correspondent packet communication terminal, the destination network address storing means stores a plurality of said destination network addresses corresponding to the respective network addresses; and

wherein the second packet receiving means receives a packet transmitted from the correspondent packet communication terminal, provided with one of the plurality of destination network addresses, and generated from identical data.

15. A packet communication system for packet communication between a first packet communication terminal and a second packet communication terminal,

wherein the first packet communication terminal comprises:

network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the first packet communication terminal can be connected;

network address storing means for storing the network address acquired by the network address acquiring means;

network address notifying means for notifying the second packet communication terminal of the network address stored in the network address storing means; and

5 first packet receiving means for receiving a packet sent from the second packet communication terminal to the network address;

wherein the second packet communication terminal comprises:

10 destination network address storing means for storing the network address notified of by the first packet communication terminal, as a destination network address;

15 second packet generating means for generating a packet from data to be transmitted to the first packet communication terminal; and

second packet transmitting means for transmitting the packet to the first packet communication terminal;

20 wherein when there exist a plurality of networks to which the first packet communication terminal can be connected, the network address acquiring means of the first packet communication terminal acquires a plurality of said network addresses from the respective networks;

25 wherein the network address storing means of the first packet communication terminal stores the

plurality of network addresses;

wherein the network address notifying means of the first packet communication terminal notifies the second packet communication terminal of the plurality of network addresses;

5 wherein when a plurality of said network addresses are notified of by the first packet communication terminal, the destination network address storing means of the second packet communication terminal stores a plurality of said destination network addresses corresponding to the plurality of network addresses;

10 wherein when a plurality of said destination network addresses are stored in the destination network address storing means, the second packet transmitting means of the second packet communication terminal transmits said packets generated from identical data, to the respective destination network addresses; and

15 wherein the first packet receiving means of the first packet communication terminal receives the packets generated from the identical data and transmitted from the second packet communication terminal to the respective network addresses.

20 16. A packet communication system for packet communication between a first packet communication terminal and a second packet communication terminal,

wherein the first packet communication terminal comprises:

network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the first packet communication terminal can be connected;

network address storing means for storing the network address acquired by the network address acquiring means;

network address notifying means for notifying the second packet communication terminal of the network address stored in the network address storing means;

first packet generating means for generating a packet from data to be transmitted to the second packet communication terminal; and

first packet transmitting means for providing the packet with the network address stored in the network address storing means and for transmitting the packet to the second packet communication terminal;

wherein the second packet communication terminal comprises:

destination network address storing means for storing a network address notified of by the first packet communication terminal, as a destination network address; and

second packet receiving means for receiving a

packet transmitted from the first packet communication terminal;

5 wherein when there exist a plurality of networks to which the first packet communication terminal can be connected, the network address acquiring means of the first packet communication terminal acquires a plurality of said network addresses from the respective networks;

10 wherein the network address storing means of the first packet communication terminal stores the plurality of network addresses;

15 wherein the network address notifying means of the first packet communication terminal notifies the second packet communication terminal of the plurality of network addresses;

20 wherein when a plurality of said network addresses are notified of by the first packet communication terminal, the destination network address storing means of the second packet communication terminal stores a plurality of said destination network addresses corresponding to the respective network addresses;

25 wherein when a plurality of said network addresses are stored in the network address storing means, the first packet transmitting means of the first packet communication terminal provides said packets

generated from identical data by the first packet generating means, with the network addresses acquired from the respective networks and transmits the packets to the respective networks; and

5 wherein the second packet receiving means of the second packet communication terminal receives a packet transmitted from the first packet communication terminal, provided with one of the plurality of network addresses, and generated from the identical data.

10 17. A packet communication method for packet communication between a first packet communication terminal and a second packet communication terminal, the packet communication method comprising:

15 a network address acquiring step wherein network address acquiring means of the first packet communication terminal acquires a network address of the packet communication terminal from a network to which the first packet communication terminal can be connected;

20 a network address storing step wherein network address storing means of the first packet communication terminal stores the network address acquired by the network address acquiring means;

25 a network address notifying step wherein network address notifying means of the first packet communication terminal notifies the second packet

communication terminal of the network address stored in the network address storing means;

5 a destination network address storing step wherein destination network address storing means of the second packet communication terminal stores the network address notified of by the first packet communication terminal, as a destination network address;

10 a first packet generating step wherein second packet generating means of the second packet communication terminal generates a packet from data to be transmitted to the first packet communication terminal;

15 a first packet transmitting step wherein second packet transmitting means of the second packet communication terminal transmits the packet to the first packet communication terminal; and

20 a first packet receiving step wherein first packet receiving means of the first packet communication terminal receives the packet transmitted from the second packet communication terminal to the network address;

25 wherein in the network address acquiring step, when there exist a plurality of networks to which the first packet communication terminal can be connected, the network address acquiring means of the first packet

communication terminal acquires a plurality of said network addresses from the respective networks;

5 wherein in the network address storing step the network address storing means of the first packet communication terminal stores the plurality of network addresses;

10 wherein in the network address notifying step the network address notifying means of the first packet communication terminal notifies the second packet communication terminal of the plurality of network addresses;

15 wherein in the destination network address storing step, when a plurality of said network addresses are notified of by the first packet communication terminal, the destination network address storing means of the second packet communication terminal stores a plurality of said destination network addresses corresponding to the respective network addresses;

20 wherein in the first packet transmitting step, when a plurality of said destination network addresses are stored in the destination network address storing means, the second packet transmitting means of the second packet communication terminal transmits said
25 packets generated from identical data, to the respective destination network addresses; and

wherein in the first packet receiving step the first packet receiving means of the first packet communication terminal receives the packets generated from the identical data and transmitted from the second packet communication terminal to the respective destination network addresses.

18. A packet communication method for packet communication between a first packet communication terminal and a second packet communication terminal, the packet communication method comprising:

a network address acquiring step wherein network address acquiring means of the first packet communication terminal acquires a network address of the packet communication terminal from a network to which the first packet communication terminal can be connected;

a network address storing step wherein network address storing means of the first packet communication terminal stores the network address acquired by the network address acquiring means;

a network address notifying step wherein network address notifying means of the first packet communication terminal notifies the second packet communication terminal of the network address stored in the network address storing means;

a destination network address storing step

wherein destination network address storing means of the second packet communication terminal stores the network address notified of by the first packet communication terminal, as a destination network address;

5 a second packet generating step wherein first packet generating means of the first packet communication terminal generates a packet from data to be transmitted to the second packet communication terminal;

10 a second packet transmitting step wherein first packet transmitting means of the first packet communication terminal provides the packet with the network address stored in the network address storing means and transmits the packet to the second packet communication terminal; and

15 a second packet receiving step wherein second packet receiving means of the second packet communication terminal receives the packet transmitted from the first packet communication terminal;

20 wherein in the network address acquiring step, when there exist a plurality of networks to which the first packet communication terminal can be connected, the network address acquiring means of the first packet communication terminal acquires a plurality of said network addresses from the respective networks;

wherein in the network address storing step the network address storing means of the first packet communication terminal stores the plurality of network addresses;

5 wherein in the network address notifying step the network address notifying means of the first packet communication terminal notifies the second packet communication terminal of the plurality of network addresses;

10 wherein in the destination network address storing step, when a plurality of said network addresses are notified of by the first packet communication terminal, the destination network address storing means of the second packet communication
15 terminal stores a plurality of said destination network addresses corresponding to the respective network addresses;

 wherein in the second packet transmitting step, when a plurality of said network addresses are stored
20 in the network address storing means, the first packet transmitting means of the first packet communication terminal provides said packets generated from identical data by the first packet generating means, with the network addresses acquired from the respective networks
25 and transmits the packets to the respective networks;
 and

wherein in the second packet receiving step the second packet receiving means of the second packet communication terminal receives a packet transmitted from the first packet communication terminal, provided with one of the plurality of network addresses, and generated from the identical data.

19. A packet communication program for letting a packet communication terminal function as:

network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the packet communication terminal can be connected;

network address storing means for storing the network address acquired by the network address acquiring means;

network address notifying means for notifying a correspondent packet communication terminal of the network address stored in the network address storing means; and

first packet receiving means for receiving a packet sent from the correspondent packet communication terminal to the network address;

wherein when there exist a plurality of networks to which the packet communication terminal can be connected, the network address acquiring means acquires a plurality of said network addresses from the

respective networks;

wherein the network address storing means stores the plurality of network addresses;

5 wherein the network address notifying means notifies the correspondent packet communication terminal of the plurality of network addresses; and

10 wherein the first packet receiving means receives packets generated from identical data and sent from the correspondent packet communication terminal to the respective network addresses.

20. A packet communication program for letting a packet communication terminal function as:

15 network address acquiring means for acquiring a network address of the packet communication terminal from a network to which the packet communication terminal can be connected;

network address storing means for storing the network address acquired by the network address acquiring means;

20 network address notifying means for notifying a correspondent packet communication terminal of the network address stored in the network address storing means;

25 first packet generating means for generating a packet from data to be transmitted to the correspondent packet communication terminal; and

first packet transmitting means for providing the packet with the network address stored in the network address storing means and for transmitting the packet to the correspondent packet communication terminal;

5 wherein when there exist a plurality of networks to which the packet communication terminal can be connected, the network address acquiring means acquires a plurality of said network addresses from the respective networks;

10 wherein the network address storing means stores the plurality of network addresses;

 wherein the network address notifying means notifies the correspondent packet communication terminal of the plurality of network addresses; and

15 wherein when a plurality of said network addresses are stored in the network address storing means, the first packet transmitting means provides said packets generated from identical data by the first packet generating means, with the network addresses
20 acquired from the respective networks and transmits the packets to the respective networks.

21. A packet communication program for letting a packet communication terminal function as:

25 destination network address storing means for storing a network address notified of by a correspondent packet communication terminal, as a

destination network address;

second packet generating means for generating a packet from data to be transmitted to the correspondent packet communication terminal; and

5 second packet transmitting means for transmitting the packet to the correspondent packet communication terminal;

10 wherein when a plurality of said network addresses are notified of by the correspondent packet communication terminal, the destination network address storing means stores a plurality of said destination network addresses corresponding to the plurality of network addresses; and

15 wherein when a plurality of said destination network addresses are stored in the destination network address storing means, the second packet transmitting means transmits said packets generated from identical data, to the respective destination network addresses.

20 22. A packet communication program for letting a packet communication terminal function as:

destination network address storing means for storing a network address notified of by a correspondent packet communication terminal, as a destination network address; and

25 second packet receiving means for receiving a packet transmitted from the correspondent packet

communication terminal;

5 wherein when a plurality of said network addresses are notified of by the correspondent packet communication terminal, the destination network address storing means stores a plurality of said destination network addresses corresponding to the respective network addresses; and

10 wherein the second packet receiving means receives a packet transmitted from the correspondent packet communication terminal, provided with one of the plurality of destination network addresses, and generated from identical data.